

APPENDIX A
KENNECOTT OPERATIONS PLAN
DETERMINATION OF IMPAIRMENT

A determination of impairment is made for most of the resource impact topics carried forward and analyzed in the environmental assessment for the preferred alternative. The description of park significance in the *2009 Wrangell St. Elias National Park and Preserve Foundation Statement* was used as a basis for determining if a resource is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified in the park's general management plan or other relevant NPS planning documents as being of significance.

Impairment determinations are not provided for visitor opportunities, transportation/access, or socioeconomics because impairment determinations relate back to park resources and values. These impact areas are not considered to be park resources or values.

Water Resources

Protection of fish habitat and protection of populations of fish are specifically identified as park purposes. Protected salmon habitat is identified as one of the significant resources that defines what is most important about the park's resources and values and is tied to the park purpose. Healthy fisheries are necessary to fulfill the purposes for which the park was established and are key to the natural integrity of the park. However, no fish have been inventoried in Bonanza, Jumbo, National Creeks and the Kennicott River. These are creeks that would most likely be impacted by actions described in the preferred alternative.

Under the preferred alternative, direct and indirect effects on water resources would be minor because of the temporary duration and low intensity of the impacts. These impacts would not result in impairment.

Vegetation

Management for vegetation is not specifically identified as a purpose in the establishing legislation of the park and vegetation is not specifically identified in the park's general management plan as being of significance.

Under the preferred alternative, vegetation thinning and removal would be done to facilitate improved viewsheds, protection from wildland fire, trail clearing and maintenance, and infrastructure development. This would result in 5 acres of vegetation clearing or thinning. Direct and indirect effects on vegetation would be moderate because impacts are generally long-term, low to medium intensity, and affect a common park resource. These impacts would not result in impairment.

Cultural Resources

Protection of cultural resources is not specifically identified as one of the park's purposes in the establishing legislation of the park (prior to the NPS acquisition of lands in the Kennecott Mines NHL). However, the Kennecott Mines NHL is specifically identified as a fundamental resource and value of the park in the *2009 Wrangell St. Elias National Park and Preserve Foundation Statement*. Proposed management of the NHL has been and will continue to be targeted at the stabilization and preservation of the cultural landscape associated with the Kennecott mines and mill town.

Because of the introduction of non-historic elements, some actions proposed in the preferred alternative would result in an adverse effect to the cultural landscape. Additionally, some archeological resources would be displaced from the landscape as a result of historic structure stabilization. These would be long term, medium intensity impacts to an important park resource and would result in moderate impacts to cultural resources. These effects would be off-set by the positive effect from the stabilization of historic structures and cultural landscape elements. Overall, the impacts to cultural resources from the implementation of the preferred alternative would not result in impairment of cultural resources.

Wildlife

Protection of habitat for, and populations of, wildlife including but not limited to caribou, brown/grizzly bears, Dall sheep, moose, wolves, trumpeter swans and other waterfowl, and marine mammals is specifically identified as a park purpose. Unimpacted wildlife, unfragmented habitat, and native species are all identified as significant resources that define what is most important about the park's resources and values and is tied to the park purpose. Healthy wildlife habitat and populations are necessary to fulfill the purposes for which the park was established and are key to the natural integrity.

Proposals considered in the preferred alternative would have a minor impact on wildlife habitat. Direct and indirect effects on wildlife would be moderate because of impacts on bear habitat and habituation associated with the campground and Kennicott glacier trail. Because these impacts would not impact the continued viability of wildlife populations in the area or in the park, these impacts would not result in impairment to wildlife habitat or populations.

Visual Resources

"To maintain unimpaired the scenic beauty and quality of high mountain peaks, foothills, glacial systems, lakes and streams, valleys, and coastal landscapes in their natural state" is identified as a park purpose. However, the management goal for the Kennecott Mines NHL, as stated in Chapter 1 of this EA, is to stabilize, preserve, and interpret the key patterns, relationships, and remaining structures and features that define the historic, cultural and natural character of the NHL.

Within the milltown, the direct and indirect effects resulting from water system development, vegetation clearing, historic structure stabilization, and painting of historic structures would result in a moderate impact to visual resources. These impacts may be perceived negatively to a local resident who sees them as a change; on the other hand they may be perceived positively by a park visitor who sees stabilized and preserved historic structures rather than dilapidated structures on the verge of collapse. Regardless, these impacts do not represent impairment to visual resources, particularly when viewed through the context of effects to the surrounding glacial wilderness.

Soundscape

Soundscape is not identified as a park purpose or as a significant park resource, either in ANILCA or in the general management plan for the park.

The preferred alternative, because of the continuation of stabilization efforts over the next five years, would have temporary, high intensity impacts on a soundscape that, within the Kennecott millsite, is far from natural. These moderate impacts would not result in impairment of the natural soundscape.

Summary

As described above, adverse impacts anticipated as a result of implementing the preferred alternative on a resource or value whose conservation is necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or identified as significant in the park's general management plan or other relevant NPS planning documents; would not rise to levels that would constitute impairment.